

What is claimed is:

1           1.       A method of dynamically protecting access to a first network, comprising:  
2                   receiving, in a system, a data unit containing a source address indicating a  
3 source of a data unit;  
4                   matching the source address with information stored in the system; and  
5                   enabling entry of the data unit to the first network if the source address  
6 matches the information stored in the system and denying entry of the data unit to the  
7 first network if the source address does not match the information stored in the system.

1           2.       The method of claim 1, wherein matching the source address with the  
2 information comprises matching the source address with one or more entries of a network  
3 address translation mapping table.

1           3.       The method of claim 1, wherein matching the source address comprises  
2 matching an Internet Protocol address.

1           4.       The method of claim 1, wherein receiving the data unit comprises  
2 receiving a data unit containing media associated with a call session.

1           5.       The method of claim 1, further comprising determining if the data unit  
2 contains a payload according to a predetermined protocol, and denying entry of the data  
3 unit if the data unit does not contain payload according to the predetermined protocol.

1           6.       The method of claim 5, wherein determining if the data unit contains a  
2 payload according to the predetermined protocol comprises determining if the data unit  
3 contains a payload according to a Real-Time Protocol or Real-Time Control Protocol.

1           7.       The method of claim 1, further comprising storing profile information for  
2 each call session, and determining if an unauthorized access of the first network is  
3 occurring based on the profile information.

1           8.     The method of claim 7, wherein storing the profile information comprises  
2 storing a threshold representing a maximum acceptable rate of incoming data units from  
3 an external network to the first network.

1           9.     The method of claim 8, further comprising calculating a value for the  
2 threshold based on a frame size used in the call session.

1           10.    The method of claim 8, wherein storing the profile information further  
2 comprises storing a pattern expected in incoming data units.

1           11.    The method of claim 10, wherein storing the pattern comprises storing a  
2 codec type used in the call session.

1           12.    The method of claim 8, further comprising generating an alarm if the  
2 system detects a rate of incoming data units from the external network to the first  
3 network exceeding the threshold.

1           13.    The method of claim 8, further comprising denying further transport of  
2 incoming data units from the external network to the first network for the call session if  
3 the system detects a rate of incoming data units from the external network to the first  
4 network exceeding the threshold.

1           14.    An article comprising at least one storage medium containing instructions  
2 for protecting a first network, the instructions when executed causing a system to:  
3                   determine if a rate of incoming data units from an external network to the  
4 first network exceeds a predetermined threshold; and  
5                   perform a security action if the determined rate of incoming data units  
6 exceeds the predetermined threshold.

1           15.    The article of claim 14, wherein the instructions when executed cause the  
2 system to determine if the rate of incoming data units exceeds the predetermined  
3 threshold in a given call session.

1           16.    The article of claim 15, wherein the instructions when executed cause the  
2 system to further store plural thresholds for corresponding plural call sessions.

1           17.    The article of claim 15, wherein the instructions when executed cause the  
2 system to further calculate the predetermined threshold based at least in part on a frame  
3 size used in the call session.

1           18.    The article of claim 14, wherein the instructions when executed cause the  
2 system to further determine if each incoming packet has a predetermined pattern.

1           19.    The article of claim 18, wherein the instructions when executed cause the  
2 system to determine if each incoming packet has the predetermined pattern by checking if  
3 each incoming packet has an indication of a predetermined codec type.

1           20.    A system for use in communications between a first network and an  
2 external network, comprising:  
3                   a storage module to store a threshold value for a communications session,  
4 the threshold value representing an acceptable rate of incoming data units from the  
5 external network to the first network; and  
6                   a controller adapted to deny further entry of data units from the external  
7 network to the first network in the communications session in response to the controller  
8 detecting that the rate of incoming data units exceeds the threshold value.

1           21.     The system of claim 20, the storage module to further store address  
2 information, wherein the controller is adapted to compare a source address of an  
3 incoming data unit with the address information stored in the system and to deny further  
4 entry of the incoming data unit if the source address does not match the address  
5 information stored in the system.

1           22.     The system of claim 21, wherein the address information comprises a  
2 network address translation table.

1           23.     The system of claim 22, wherein the network address translation table  
2 comprises a network address and port translation table.

1           24.     The system of claim 21, wherein the controller is adapted to further check  
2 if the incoming data unit contains a Real-Time Protocol or Real-Time Control Protocol  
3 payload, and to deny further entry of the incoming data unit if the incoming data unit  
4 does not contain a Real-Time Protocol or Real-Time Control Protocol payload.

1           25.     The system of claim 20, the storage module to further store a codec type  
2 for the communications session, wherein the controller is adapted to deny entry of an  
3 incoming data unit if the incoming data unit does not contain an indication of the codec  
4 type.